

EXHIBIT 1

**PATENT APPLICATION****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q71368

Giorgio CAZZANIGA, et al.

Appln. No.: 10/219,343

Group Art Unit: 2682

Confirmation No.: 4899

Examiner: Raymond B. PERSINO

Filed: August 16, 2002

For: METHOD TO IMPLEMENT A PERFORMANCE MONITORING FUNCTION ON THE
GROUND OF THE RETRIEVED DATA THROUGH FEC (FORWARD ERROR
CORRECTION) IN A TELECOM NETWORK

EXCESS CLAIM FEE PAYMENT LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:


An Amendment Under 37 C.F.R. § 1.111 is attached hereto for concurrent filing in the above-identified application. The resulting excess claim fee has been calculated as shown below:

	After Amendment		Highest No. Previously Paid For					
All Claims	8	-	20	=	X	\$50.00	=	\$0.00
Independent	5	-	3	=	2	X	\$200.00	= \$400.00
TOTAL							= \$400.00	

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880.

Please also credit any overpayments to said Deposit Account. A duplicate copy of this letter is enclosed.

Respectfully submitted,



Kelly G. Hyndman
Registration No. 39,234

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: June 10, 2005

2682/14



PATENT APPLICATION

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Giorgio CAZZANIGA, et al. Docket No. Q71368
 Appln. No. 10/219,343 Group Art Unit 2682
 Confirmation No. 4899 Examiner Raymond B. PERSINO
 Filed August 16, 2002

For: METHOD TO IMPLEMENT A PERFORMANCE MONITORING FUNCTION ON THE
 GROUND OF THE RETRIEVED DATA THROUGH FEC (FORWARD ERROR
 CORRECTION) IN A TELECOM NETWORK

AMENDMENT UNDER 37 C.F.R. § 1.111

MAIL STOP AMENDMENT

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated March 11, 2005, please amend the above-identified application as follows on the accompanying pages.

In the claims.

1. (currently amended): A method for implementing a Performance Monitoring function in a telecommunication network, the method comprising the steps of:

receiving blocks of data;

obtaining data through a Forward Error Correction function carried out on the blocks of received data;

classifying said blocks either as corrected or uncorrected through said Forward Error Correction function; and

~~wherein the method further comprises the step of calculating said Performance Monitoring~~
 function by implementing a correlation of the information regarding said corrected and uncorrected blocks[.];

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wherein said correlation of the information regarding said corrected and uncorrected blocks includes calculating information comprising:

a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected; and
a number of corrected errors (BCE) in a non-SCS base reference time period.

2. (canceled).

3. (currently amended): A method according to claim 21, wherein said Performance Monitoring function is calculated according to the following relation, applied in an iterative way on determined total time intervals (NSEC), consisting in a number of base reference time periods:

$$BER_{IN} = \sum BCE / (NSEC - \sum BCE - SCS)$$

wherein: \sum is the summation of the values of the BCE and SCS events in the determined total time interval; BER_{IN} is the Bit Error Rate which constitutes a measure of said Performance Monitoring (PM) function in the total time interval.

4. (original): A method according to claim 3, wherein said information regarding said "corrected" and "uncorrected" blocks are calculated through the application of the following sequence of operations, which are carried out in an iterative way on said base reference time intervals:

if in the present base reference time interval there is a defect (DS), a counter of base reference time period SCS ($\sum SCS$) is increased by one on the total time interval (NSEC), and it is ended; the same is valid, if in the second under examination there is at least an uncorrected block (UB);

otherwise there is the number of corrected errors (BCE) in the present base reference time interval and the error counter ($\sum BCE$) in the total time interval is incremented by that value (BCE) and it is ended;

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the sequence of functions being carried out a number of times equal to the number of the base reference time interval in the total time interval.

5. (currently amended): A management system of a telecommunication network, wherein it comprises~~comprising~~:

~~means for the implementation of a method for implementing a Performance Monitoring function according to~~based on data retrieved through a Forward Error Correction function;
~~as in claim 1.~~

means for receiving blocks of data;

means for obtaining data through the Forward Error Correction function carried out on the blocks of received data;

means for classifying said blocks either as corrected or uncorrected through the Forward Error Correction function; and

means for calculating the Performance Monitoring function by implementing a correlation of the information regarding said corrected and uncorrected blocks;

wherein said correlation of the information regarding said corrected and uncorrected blocks includes calculating information comprising:

a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected; and

a number of corrected errors (BCE) in a non-SCS base reference time period.

6. (currently amended): A telecommunication network ~~characterized in that it comprises~~having a management system, as claimed in claim 5, said telecommunication network comprising:

means for implementing a Performance Monitoring function based on data retrieved through a Forward Error Correction function;

means for receiving blocks of data;

means for obtaining data through the Forward Error Correction function carried out on the blocks of received data;

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means for classifying said blocks either as corrected or uncorrected through the Forward Error Correction function; and
means for calculating the Performance Monitoring function by implementing a correlation of the information regarding said corrected and uncorrected blocks;
wherein said correlation of the information regarding said corrected and uncorrected blocks includes calculating information comprising:
a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected; and
a number of corrected errors (BCE) in a non-SCS base reference time period.

7. (currently amended): A computer program ~~having comprising~~ a program code ~~means~~ adapted to perform one or more steps ~~of the method according to claim 1,~~ when said program is run on a computer, ~~[[.]]~~ said computer program comprises:

implementing a Performance Monitoring function based on data retrieved through a Forward Error Correction function;
receiving blocks of data;
obtaining data through the Forward Error Correction function carried out on the blocks of received data;
classifying said blocks either as corrected or uncorrected through the Forward Error Correction function; and
calculating the Performance Monitoring function by implementing a correlation of the information regarding said corrected and uncorrected blocks;
wherein said correlation of the information regarding said corrected and uncorrected blocks includes calculating information comprising:
a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected; and
a number of corrected errors (BCE) in a non-SCS base reference time period.

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8. (currently amended): A computer readable medium having ~~a program~~ recorded thereon ~~a, said computer readable medium comprising: computer program code, means adapted to enable a computer to perform one or more steps comprising: of the method according to claim 1, when said program is run on a computer~~

implementing a Performance Monitoring function based on data retrieved through a Forward Error Correction function;

receiving blocks of data;

obtaining data through the Forward Error Correction function carried out on the blocks of received data;

classifying said blocks either as corrected or uncorrected through the Forward Error Correction function; and

calculating the Performance Monitoring function by implementing a correlation of the information regarding said corrected and uncorrected blocks;

wherein said correlation of the information regarding said corrected and uncorrected blocks includes calculating information comprising:

a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected; and

a number of corrected errors (BCE) in a non-SCS base reference time period.

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REMARKS

Applicant has herein amended claim 1 to include the subject matter of claim 2 and has adjusted dependency accordingly. Claim 2 is herein canceled. Claims 5-8 have been rewritten in independent form so as to conform to U.S. practice.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 2 and 5-8 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Cooper et al. (US 6,772,388 B2). Applicant respectfully traverses.

The following remarks are for independent claim 1 but apply by analogy to independent claims 5-8. Herein amended claim 1 requires:

wherein said correlation of the information regarding said corrected and uncorrected blocks includes calculating information comprising:

a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected; and

a number of corrected errors (BCE) in a non-SCS base reference time period.

The Examiner indicated that the following passage of Cooper teaches the subject matter of herein amended claim 1: “[a]t a step 202 a number of data samples equal to the **sample window size** is collected (See Equation (4)). Preferably, the number of samples is equal to a minimum of $5/BER$. As applied to a system having a bit error rate of 1×10^{-6} , the **sample window size** would therefore preferably be 5×10^6 bits [*emphasis added*].” (col. 11, lines 41-46). In other words, the corrected and uncorrected blocks, in Cooper, are determined within the sample window size. (See col. 11, lines 47-51 and Fig. 2).

Even if, *aguyendo*, the sample window size in Cooper were taken as “a defected base reference time period (SCS) or a time period where at least an uncorrected block (UB) has been detected”, Cooper does not teach and the Examiner has failed to show that Cooper teaches “a number of corrected errors (BCE) in a non-SCS base reference time period”. That is, the steps beginning at step 202 throughout the last step in Fig. 2 are all based on the *same* sample window size in Cooper. In Cooper, there is no correlation between a sample window size (time period) and a non-sample window size (different time period), for uncorrected and corrected blocks, respectively.

in the same sample window size, the cited passage by the Examiner does not anticipate the subject matter of herein amended claim 1.

Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1 and of claims 5-8, by analogy.

Allowable Subject Matter

Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicant has not rewritten the objected to claims in independent form, as Applicant believes that the present response should place this application in condition for allowance.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC
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Facsimile: (202) 293-7860

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/Kelly G. Hyndman/
Kelly G. Hyndman
Registration No. 39,234

Date: June 10, 2005